

mobius

Algebra with Logarithms - Binomial over **Binomial and Constant**



Simplify and solve for y

$$\log_2(rac{y+8}{y-7}) = 4 \log_2(rac{z+7}{z-7}) = 3 \log_2(rac{z+7}{z-7}) = 3 \log_2(rac{z+7}{z-7})$$

Simplify and solve for z

$$\log_2(rac{z+7}{z-7}) = 3$$
 $z=8$ $z=9$

3

Simplify and solve for t

$$\log_2{(rac{t+7}{t-7})} = 3$$
 $t = 10$
 $t = 9$
 $\log_2{(rac{w+6}{w-8})} = 3$
 $w = 10$

4

Simplify and solve for w

$$\log_2{(rac{w+6}{w-8})}=3$$
 $w=10$ $w=11$

5

Simplify and solve for z

8

Simplify and solve for y

$$\log_2(rac{z+7}{z-8})=4$$
 $z=8$ $z=9$ $\log_4(rac{y+8}{y-7})=2$ $y=9$

$$y=9y=8$$

7

Simplify and solve for n

Simplify and solve for x

$$\log_4{(rac{n+7}{n-8})} = 2$$
 $n=8$ $n=9$ $\log_2{(rac{x-9}{x-2})} = 3$ $x=1$

$$(\log_2{(rac{x-9}{x-2})}=3$$
 $x=1$ $x=2$